COOPER | MACHINERY SERVICES

COOPER COMPRESSION SERVICES

Ensuring Reliable Reciprocating Compressor Performance

Overview

Cooper provides comprehensive reciprocating compression services backed by decades of experience, combining advanced engineering expertise with handson knowledge to deliver reliable overhauls, upgrades, and parts support. We specialize in diagnosing complex compressor issues and implementing innovative solutions that extend equipment life, improve operational performance, and maximize reliability. In addition to our service capabilities, we design and manufacture new compressor cylinders, supporting both O.E.M. and non-O.E.M. equipment with precision-engineered solutions built for durability and performance.

Following the acquisition of ACI Services and PPMW, Cooper has broadened its technical capabilities, engineering resources, and field service reach, strengthening our ability to support legacy product lines while delivering even greater value to our customers.

Product & Service Offerings

Cooper offers full-service solutions to restore, upgrade, and maintain reciprocating compressors.

Compressor Cylinder Design & Manufacturing

Cooper designs and manufactures new compressor cylinders for both O.E.M. and non-O.E.M. equipment. Our engineering expertise and advanced manufacturing processes ensure that every cylinder is built for durability, efficiency, and long-term performance. Whether replacing worn cylinders or designing new configurations to meet evolving operational demands, we deliver precision solutions that enhance compressor reliability and extend asset life.



EGENDS DON'T STOP. WE MAKE SURE OF IT.













Parts Support

We maintain one of the industry's largest inventories of new and refurbished components, providing immediate access to high-performance parts without long lead times. Our portfolio covers everything from major assemblies such as frames, crankcases, crankshafts, connecting rods, and crossheads—to critical wear parts including bearings, bushings, cylinders, cylinder heads, valves, pistons, piston rods, rider bands, packing cases, and wiper packing. By offering both new and expertly refurbished part options, we reduce unplanned downtime, optimize total cost of ownership, and keep your operations on track.

Cylinder Repair Services

Each compressor cylinder undergoes a comprehensive inspection to assess its condition and performance. Based on the results, our team develops a detailed repair scope designed to return the cylinder to zero-hour condition. When repair is not the most efficient option, Cooper also offers high-quality replacement cylinders to keep your operations running.

Piston & Rod Repair Services

Piston and rod repair services are available to you to extend the life and performance of your equipment. Each component is fully inspected and non-destructive tested (NDT) to ensure structural integrity. Our technicians polish and hone packing areas, manufacture and install new rider bands and rings, and reassemble using proper torque and lubrication procedures. Whether preparing for long-term storage or immediate installation, your pistons and rods will be restored to peak operating condition.

Compressor Frame & Running Gear Services

Our frame and running gear services include crankcase main bearing bore and crosshead guide repair, connecting rod clipping and re-boring, crosshead pin bushing repair, crosshead slipper re-babbitting, and complete crankshaft rebuilds with chroming and thermal coating options.

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Compressor Valve & Packing Repair Services

Our reliable solutions restore your critical components to zero-hour condition. Our experts not only rebuild and repair compressor valves and packing but also recommend upgrades using state-of-the-art materials, keeping your compression equipment operating at its best.

Frame-Off Overhauls

We perform frame-off overhauls, where the entire asset is removed from the field and rebuilt in a controlled environment. This approach ensures the highest quality standards, exceptional documentation, and guaranteed on-time delivery—enabling you to meet schedules without compromise.

Field Services

Cooper's field service capabilities are built on a long history of hands-on experience and a commitment to safety and reliability. Our team delivers both shopand field-based execution with dedicated engineering oversight, ensuring projects are completed with precision and efficiency. We provide detailed planning support to minimize downtime, 24/7 rapid response for urgent needs, and maintain an uncompromising focus on safety.



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Compressor Thermodynamic Review & Optimization

Our advanced technical capabilities allow us to model, diagnose, and optimize reciprocating compressor performance with precision. Using our proprietary eRCM (Reciprocating Compressor Modeling) software, we can simulate the effects of changes in speed, clearance, cylinders, and valves to evaluate how each adjustment impacts capacity, horsepower, and efficiency. This powerful tool gives our engineers the insight needed to:

- Identify the most efficient operating points
- Optimize operations and asset performance
- Evaluate rerates, upgrades & equipment modifications
- Troubleshoot complex performance issues
- Support long-term maintenance planning & compliance with detailed reports

Turnarounds

With proven expertise in managing critical turnarounds, Cooper provides comprehensive outage planning and execution support. Whether performed in the shop or onsite, our services include outage material planning, engineering proficiency, and expert supervision throughout every stage of execution. Our team delivers detailed documentation and around-the-clock support to ensure projects are completed safely, on schedule, and to the highest standards of quality.

Customer Value

Cooper delivers measurable value by combining bestin-class repair expertise, advanced engineering knowhow, and one of the industry's largest inventories of new and refurbished parts. You benefit from reduced downtime through precise diagnostics and rapid parts availability, extended equipment life through high-quality component upgrades, and cost savings through optimized maintenance practices supported by advanced tools like eRCM™. With proven capabilities, decades of successful turnaround experience, and the assurance of exceptional documentation, Cooper provides the confidence, reliability, and engineering excellence required to keep your critical assets performing at their best.